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ABSTRACT

A study was conducted to examine the communication reticence of high school students enrolled in required speech and writing courses. Approximately 200 students completed the Personal Report of Communication Apprehension (PRCA), the Unwillingness-to-Communicate Scale (UCS), and the Writing Apprehension Test (WAT). Data were then analyzed to determine biological and psychological sex differences, if any, in ratings on the three measures, and relationships among scores on the measures. Results indicate that significant differences occurred (1) between males and females in rating the Public and Platform Speaking dimension of the PRCA, and (2) among psychological sex groups in rating the three dimensions of the PRCA, the Approach-Avoidance dimension of the UCS, and the Enjoyment and Ease of Writing dimensions of the WAT, with masculine and androgynous subjects rating the dimensions lower than feminine and undifferentiated subjects in all cases. Overall, the findings show that over 40% of the students were apprehensive about public speaking and over 30% did not enjoy writing. Ten data tables are appended. (FL)

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An Assessment Study of the Communication Reticence of High School Students

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ABSTRACT

This study determines the communication reticence of high school students enrolled in required speech and writing courses. Students completed the Personal Report of Communication Apprehension (PRCA), Unwillingness-to-Communication Scale (UCS), and the Writing Apprehension Test (WAT). Biological sex and psychological sex were used as independent variables. The results indicate that significant differences occurred between male and female groups in rating the Public and Platform Speaking dimension (PRCA). Significant differences occurred among psychological sex groups in rating the three dimensions of the PRCA, the Approach-Avoidance dimension of the UCS, and Enjoyment of Writing and Ease of Writing of the WAT. In all cases masculine and androgynous groups rated the dimensions lower than feminine and undifferentiated groups. Stepwise discriminant analyses and Canonical correlation analyses are reported and discussed in the paper.

During the past 15 years a proliferation of research has been completed on communication apprehension and avoidance. Numerous articles have been published in speech, English and educational journals on speech apprehension, on unwillingness-to-communicate, and on writing apprehension.[1] Each construct share the affective, cognitive and behavioral manifestations of anxiety about communicating. As a result, these constructs can be labeled collectively social-communicative anxiety, or, as Burgoon and Hale suggest, communication reticence.[2]

In 1974, Burgoon and Burgoon found a significant correlation (.43) between the unidimensional version of the Unwillingness to Communicate Scale (UCS) and the Personal Report of Communication Apprehension (PRCA) and an even larger (.69) correlation between the Approach-Avoidance dimension, but no significant relationship between the Reward factor and the PRCA.[3] More recently Daly found a significant relationship (.88) between Approach-Avoidance dimension and the PRCA.[4] Daly and Miller in 1975 found a significant relationship (.40) between composite PRCA and Writing Apprehension Test (WAT) scores.[5]

In 1983, Burgoon and Hale suggested that the use of total scores on these tests fails to uncover interrelationships among elements within measures which might result in separate measures emerging. One of the results of their study indicates that a significant positive relationship exists between Interpersonal and Small Group dimension of the PRCA and the Approach-Avoidance dimension. They suggest that a combination of the three scales would offer the greatest bandwidth in representing affective, cognitive, and behavioral facets of written and oral communication across a variety of interpersonal, public and

performance-oriented contexts.[6]

Previous research by McDowell, McDowell and Hyerdahl indicated that females were significantly more apprehensive on the PRCA and males were more apprehensive on the UCS. Androgynous and masculine students were less apprehensive on these measures than feminine and undifferentiated subjects.[7]

The primary purpose of the present study is to assess high school students' level of communication reticence as a multidimensional construct in speaking and writing situations. This exploratory study is justified for several reasons. First, no previous investigations have examined the commuication reticence of high school students. Second, no studies have focused on writing anxiety at the high school level. Third, at present no research has focused on relationships among dimensions of PRCA, WAT, and UCS of high school students and linear relationships among the sets of variables. As a result, this exploratory study might uncover oral and written communication areas that need to be addressed by high school teachers. Finally, more high schools are requiring both speaking and writing courses, and it is important to determine the level of apprehension of students.

The results of our study will determine not only the percentages of students who are apprehensive, but specific dimensions of apprehension. That is, an examination of each dimension might reveal that students with identical composite scores might be apprehensive on different dimensions. For example, females might be more apprehensive about public speaking, while males might be more apprehensive about interpersonal and small group communication. Likewise, males might rate the Ease of Writing dimension higher than females, while females might rate the Enjoyment of Writing higher than males. In addition,

the research might indicate that different psychological sex groups are more apprehensive than others.

RESEARCH QUESTIONS

1. Are there differences between the means of biological sex groups in rating the PRCA dimensions, UCS dimensions and WAT dimensions?
2. Are there differences among the means of psychological sex groups (masculine, feminine, androgynous and undifferentiated) in rating PRCA dimensions, UCS dimensions and WAT dimensions?
3. What are the relationships among PRCA dimension scores, UCS dimension scores, and WAT dimension scores?
4. What is the linear relationship between PRCA variables and WAT variables?
5. What is the linear relationship between PRCA variables and UCS variables?

PROCEDURES

A random sample of nine classroom units at a midwestern high school was selected for this study. All students participating in this study were either completing a required writing or a required speech course. All students were read a statement which asked them to rate how they felt about various types of communication activities. Although all 198 students completed the forty-eight item Communication Reticence Questionnaire, three questionnaires were not marked properly and were excluded from the analysis. The breakdown for the independent variables, biological sex and psychological sex, is reported in Table

1.

Instruments

Burgoon and Hale developed the Communication Reticence Questionnaire (CRQ) which consists of items from the Personal Report of Communication Apprehension (PRCA), Unwillingness to Communicate Scale (UCS) and Writing Apprehension Test (WAT).[8] These instruments were each subjected to principal component factor analysis with varimax rotation to determine which factor structures created the most accurate picture of the construct underlying the measure. The best rotated solution was based upon several considerations: (1) an eigenvalue cutoff of 1.0 and Scree test (Tatsuoka, 1971)[9] were used as guidelines for selecting the number of factors to be extracted; (2) to be retained on a factor an item had to have primary loading of .50 or better, have no secondary loading within .20 of the primary factor loading and a factor had to have at least two items loading on it.

Based on these criteria three factors emerged for the PRCA instrument and were labeled Public and Platform Speaking, Interpersonal and Small Group Communication, and Nonverbal Expressiveness. The coefficient alpha reliabilities for the three factors were .90, .72, and .52, respectively. The UCS yielded a two factor solution, accounting for 44 percent of the variance. The factors were labeled Approach-Avoidance and Reward. The coefficient alpha reliabilities for the two factors were .87 and .81. The factor analysis for the WAT produced three interpretable factors, labeled Ease of Writing, Enjoyment of Writing, and Rewards of Writing, which accounted for 61 percent of the variance, and the reliabilities for

the three dimensions were .81, .91, and .67, respectively. The results indicate that the three instruments are multidimensional rather than undimensional.

Personal Report of Communication Apprehension

McCroskey's self report instrument was utilized in this study. Items focus on fear of social disapproval in public speaking and in dyadic and group communication situations.[10] The items deal with the encoding process of the speaker. The public speaking items were developed from Gilkinson's PRCS. The items that focus on dyadic and group communication were developed by McCroskey and graduate students. Factor analysis with varimax rotation revealed the instrument is unidimensional. The instrument has consistently yielded Cronbach's alpha estimates of reliability exceeding .90. Unlike McCroskey, Burgoon and Hale report that the instrument is multidimensional, consisting of three subcomponents of anxiety toward public and platform speaking, interpersonal and small group interactions and ability to be expressive nonverbally.[11]

Unwillingness to Communicate Scale

Burgoon designed this scale which focuses on anomie, alienation, introversion, self-esteem, and communication apprehension. The original instrument consisted of 38 items. A varimax rotation produced two factor solutions: 1) communication with family and friends (Approach-Avoidance)
and 2) communication with others (Rewards).[12]

The Approach-Avoidance factor refers to anxieties and actual involvement or avoidance, while the reward factor refers to whether a person is isolated from others or treated in a dishonest or manipulative fashion. Burgoon and Hale report that a significant relationship exists between the Approach-Avoidance and the Interpersonal and Small Group dimension of the PRCA. In contrast, the reward dimension is independent from all other reticence dimensions.[13]

Writing Apprehension Test

Daly and Miller modeled the WAT after the PRCA, UCS, and Receiver Apprehension Test (RAT). The items were constructed to deal with some form of apprehension about writing, writing in general, teacher evaluation of writing, peer evaluation of writing, and personal evaluation. The reliability of the instrument was obtained by a split half technique (.94) and test-retest reliability (.92), which indicates that the instrument was unidimensional.[14]

In contrast, Burgoon and Hale indicate the instrument has three dimensions: Ease of Writing, Enjoyment of Writing, and Rewards of Writing. They, indicate, however, that all three dimensions are highly intercorrelated and can be combined to produce a highly reliable unidimensional scale.[15]

Bem Sex-Role Inventory

The Bem Sex-Role Inventory (BSRI) was developed by Bem in 1974. The instrument consists of 60 personality characteristics, 20 masculine, 20 feminine, and 20 social desirability items. Factor analytic techniques were used to determine unidimensional items for each category. Through this procedure, 20 items were selected for the

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masculine scale, 20 items for the feminine scale, and 20 items for the social desirability scale. In this study only 10 items from each group were used to classify students into psychological sex categories.[16]

The following operational definitions were used:

Androgynous = both masculine and feminine scores about the median

Feminine = feminine scores above the median

Masculine = masculine scores above the median

Undifferentiated = both scores below the median

Bem reports the careful construction of the BSRI which indicates high internal consistency, discriminant validity and test-retest reliability. The instrument has been used in numerous communication studies and has been a good discriminating variable.[17]

Statistical Analysis

Discriminant function analyses and canonical correlations were completed on the data. Wimmer indicates that multivariate analysis is superior to univariate analysis as it can handle many variables simultaneously, and thereby saves time, resources and investigations of theory structure--while univariate analysis slows the process of structure analysis.[18] Specifically, discriminant analysis maximizes differences between groups on variables included as predictors.

A stepwise discriminant analysis is employed in this study. Initially, the best discriminating variable is selected. Next, a second variable is selected from the remaining variables using criteria that would improve the multivariate F in combination with the first. This same process is continued until all significant variables are selected. Bartlett's Chi Square test is also computed. Through this process the optimum discriminant function is that which maximizes

the ratio of the among group sum of squares to the within group sums of squares. Likewise, through the statistical process of canonical correlational analysis, the linear relationship between two sets of variables can be determined.

RESULTS

The mean results, reported in Tables 2 through 5, indicate that limited differences occurred between biological sex groups in rating reticence variables. Specifically, much within group variance exists for male and female groups, with limited between group variance. In contrast, larger mean differences occurred between psychological sex groups. The findings also indicate that limited within group and much between group variance exist.

The discriminant analysis results reveal that significant (χ^2=31.20; df=10; p<.001; R=40) occurred between biological sex groups on dependent measures. The discriminant function classified 66 percent of the cases into male and female groups. The analysis of variance results reveal that significant differences occurred between groups on the Public and Platform Speaking dimension (PRCA), masculine (BSRI) and feminine (BSRI), see Table 6.

The discriminant analysis results for psychological sex groups indicate that significant differences occurred (χ^2=252.05; df=10; p <.001; R=.75). Over 83 percent of the students were correctly classified into the four psychological sex groups. The univariate F results reveal that significant differences occurred among groups in rating Public and Platform Speaking (PRCA), Interpersonal and Small Groups (PRCA), Nonverbal Expressiveness (PRCA), Approach-Avoidance

(UCS), Ease of Writing (WAT), Enjoyment of Writing (WAT), Rewards of Writing (WAT), Masculine (BSRI) and Feminine (BSRI),see Table 7.

The correlational analysis reveals that significant differences occurred among a majority of reticence variables (see Table 8). Specifically, the highest significant relationships exist (1) between the Public Speaking dimension (PRCA) and Interpersonal and Small Group Communication dimension (PRCA), (2) between the Interpersonal and Small Group dimension (PRCA) and Approach Avoidance dimension (UCS), and (3) among WAT dimensions.

The canonical correlations, reported in Tables 9 and 10, indicate that significant linear relationships exist between PRCA dimensions and WAT dimensions. The overall analysis revealed a canonical variate at .49 ($p < .001$), and indicated a linear relationship between (1) the PRCA dimensions of Public and Platform Speaking (.67) and of Nonverbal Expressiveness (.50) and (2) WAT dimensions Ease of Writing (.45) and Enjoyment of Writing (.47). The canonical variate for roots 2 and 3 did not produce significant relationships.

The canonical correlations for PRCA and UCS dimensions are presented in Table 10. The first root was significant ($p < .001$) with a canonical variate of .82. Significant relationships exist between Interpersonal and Small Groups (.62) and Approach-Avoidance (.95).

DISCUSSION

An interpretation of the results of this study reveal that biological sex is not a good discriminating variable. The high within group variances and limited between group variances indicate the ratings on the dependent variables is person bound. In addition, much

within group variance exists in rating masculine and feminine items. Data snooping reveals that approximately 30 percent of the female group rated masculine items higher than the mean. Likewise, approximately 23 percent of males rated the feminine items higher that the mean. In contrast, psychological sex was a good discriminating variable. In all cases the between group variances were higher that the within group variances.

The between group results, reported in the discriminant analysis output, indicate that masculine and androgynous groups rated all PRCA dimensions, the Approach-Avoidance dimension, and the Ease of Writing dimension significantly lower than feminine and undifferentiated subjects. Androgynous subjects rated the Reward dimension and Enjoyment of Writing dimension significantly lower than other psychological sex groups.

Perhaps more important than the significant differences between biological sex groups and among psychological sex groups is the number of high school students who are apprehensive about communication. When using one standard deviation above the means as the criteria to classify subjects into the apprehensive group, 26 percent of high school students fall into the high apprehensive group in public speaking, 22 percent of males and 28 percent of the females. Approximately, 20 percent of the students were apprehensive about communicating in Interpersonal and Small Group communication situations, while 17 percent were apprehensive about Nonverbal Expressiveness, 21 percent males and 13 percent of the females.

In contrast, when using the criteria cited by McCroskey, scoring 70 or more percent of the total possible score to classify subjects on each dimensions, would classify 37 percent of males and 42 percent of

females would be classified as high apprehensives on the Public and Platform Speaking dimension. Using this same approach, 14 percent masculine, 12 percent androgynous, 51 percent feminine and 53 percent undifferentiated would be classified as high apprehensives.

The UCS results, using the standard deviations as a method to classify subjects into the high apprehensive group, reveal that approximately 20 percent of both groups were apprehensive about the Approach-Avoidance dimension while 27 percent on the Reward dimension, 29 percent of the female students and 24 percent of the male students. Using the same criterion, the standard deviations of the WAT dimensions, approximately 20 percent of the students were apprehensive about writing. In addition, for the psychological sex groups the data snooping reveals that approximately 90 percent of the apprehensive subjects were feminine or undifferentiated.

On the other hand, when using the 70 percent or more criteria, 27 percent of the students were apprehensive about the Ease of Writing, 34 percent about the Enjoyment of Writing, and 32 percent about the Rewards of Writing.

Overall, the results of this study indicate that over 40 percent of high school students are apprehensive about public speaking, and over 30 percent do not enjoy writing. Approximately 27 percent report that writing is difficult. As indicated in the introduction, the review of literature did not uncover any research or programs that have been designed to help the communication reticence of high school students. Furthermore, there is a need to identify apprehensive students and plan programs to help them.

A study by McDowell and McDowell reported how apprehensive students can be helped by participating in a desensitization program.

Teachers at this midwestern high school have been using the PRCA instrument to identify high apprehensive students and then recommend that the students participate in a desensitization program. Those who have participated have significantly lower PRCA scores than those who do not participate. Obviously, self selection is a confounding variable, but the program has proven to be valuable to those who have chosen to participate. Here are some of the remarks made by students:

1. It is very good in keeping you cool and staying relaxed.
2. It does help you to learn how to relax.
3. It has helped me to be more poised when I am speaking.
4. I can speak "off the cuff" more easily to our 4-H group and most everywhere in general.
5. I can sleep easier at night; go to sleep a lot faster.

Other self-report instruments might be developed to identify preferences of apprehensive students. For example, Neer, Hudson and Warren reported differences between high, medium, and low apprehensive groups in terms of grading procedures, speech preparation procedures, speaking order procedures, topic selection procedures and administrative procedures. The results indicate the following:

1. High apprehensive students do not want their first speech graded.
2. High apprehensive students want test grades to count more than their speech grades.
3. The class and instructor should not comment orally on their speech.
4. The first speech should not be videotaped.
5. Students do not want to give impromptu speeches.[19]

6. Students do not want to give persuasive speeches.

7. Speeches should be given to small audiences.[20]

Research is needed to determine if these findings are representative of the high school population. Initially, a replication of the Neer, Hudson and Warren study at the high school level might uncover additional information about speech apprehension of high school students. The information can be used to design new classes to help lower the speech anxiety of students.

Another study also might be conducted to determine differences between high and low apprehensive groups. For example, to determine if apprehensive students change anxiety levels during the speech experience, Brownell and Katula developed the Communication Anxiety Graph.[21] The graph consists of five time areas: immediately prior to the speech, introduction of the speech, body of the speech, conclusion, and question and answer period. By using the graph students identify the time during the speech experience in which they feel most apprehensive, called the peak anxiety experience. Brownell and Katula report that subjects experienced higher levels of anxiety immediately prior to and during the first two minutes of the speech, and the least anxiety was reported during the question and answer period. The graph could be used for each speech to determine if the results of their study are representative of high school students.

Similar types of research should be completed to help the high school student who has high Ease of Writing, the Enjoyment of Writing and the Rewards of Writing scores. For example, a study designed to uncover the same types of information as reported in the Neer, Hudson, and Warren study might indicate that apprehensive students do not enjoy impromptu writing and would prefer that test grades count more

toward their total grade than composition grades. Likewise, if a Writing Anxiety Graph were developed to identify the specific time period in which students are apprehensive, such as prior to writing or the first few minutes of writing.

Overall, the results of this study identified the communication reticence of high school students. The results indicate that public speaking and enjoyment of writing are the two most reticent areas. A series of studies should be completed to identify the high apprehensive students. Programs might be designed to help students overcome reticence, and longitudinal studies could be designed to determine the long range impact of these programs.

Footnotes

1. See J. C. McCroskey, "Measures of Communication-Bound Anxiety," Speech Monographs 37(1970), 269-277; J. C. McCroskey, Validity of the PRCA as an Index of Oral Communication Apprehension, Communication Monographs 43(1978), 192-208; J. Burgoon, "The Unwillingness-to-Communicate Scale: Development and Validation," Communication Monographs 43(1976), 60-69; M. Beatty, and R. Behnke, "An Assimilation Theory Perspective of Communication Apprehension," Human Communication Research 6(1980), 319-325; J. Daly and M. Miller, "The Empirical Development of an Instrument to Measure Writing Apprehension," Research in the Teaching of English 9(1975), 242-249; J. Daly and G. Friedrich, "The Development of Communication Apprehension: A Retrospective Analysis of Contributory Correlates," Communication Quarterly 29(1981), 243-255.

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8. Burgoon and Hale, p. 241.

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21. W. Brownell and R. Katula, "The Communication Anxiety Graph: A Classroom Tool for Managing Speech Anxiety," Communication Quarterly, 32(Summer 1984), 243-249.

TABLE 1

Demographics

IV	Number	Percent
Sex		
Male	89	46
Female	96	54
PSYS		
Masculine	39	20
Feminine	55	28
Undifferentiated	40	21
Androgynous	61	31

TABLE 2

Means on PRCA Variables

IV	Public Speaking Anxiety	Interpersonal and Small Group Anxiety	Nonverbal Anxiety
Sex			
Male	26.4	13.6	5.4
Female	28.1	14.0	4.9
PSYS			
Masculine	25.5	12.5	4.9
Feminine	29.4	15.4	5.3
Undifferentiated	31.1	15.6	6.1
Androgynous	24.1	12.1	4.5

TABLE 3

Means on Unwillingness to Communicate Variables

IV	Approach-Avoidance	Reward
Sex		
Male	24.7	17.7
Female	24.9	16.3
PSYS		
Masculine	22.2	17.1
Feminine	28.1	17.2
Undifferentiated	29.5	18.9
Androgynous	20.7	15.7

TABLE 4

Means for Psychological Sex Variables

IV	Masculine	Feminine
Sex		
Male	50.2	53.4
Female	46.0	56.2
PSYS		
Masculine	53.08	47.9
Feminine	41.7	58.1
Undifferentiated	41.9	48.0
Androgynous	54.5	60.2

TABLE 5

Means on WAT Variables

IV	Ease of Writing	Enjoyment of Writing	Reward
Sex			
Male	15.4	25.6	8.1
Female	15.1	24.5	7.9
PSYS			
Masculine	14.5	26.	8.6
Feminine	16.	24.6	8.0
Undifferentiated	16.8	27.9	8.7
Androgynous	14.1	23.1	7.2

TABLE 6

Results of Multiple Discriminant Analysis:
Biological Sex Groups

Variables	Standardized Discriminat Function Coefficient[a]	Structure Coefficient[b]	Univariate F
Public Speaking (PRCA)	-.42	-.31	3.552[x]
Interpersonal and Small Group (PRCA)	-.31	-.11	.490
Nonverbal Expressiveness (PRCA)	.53	.30	e.289
Approach-Audience (UCS)	.57	-.03	.0495
Reward (UCS)		.13	2.871
Ease in Writing (WAT)	-.21	-.06	.2556
Enjoyment of Writing (WAT)	.04	.02	1.067
Rewards of Writing (WAT)	.07	.11	.5462
Masculine (BSI)	.83	.58	11.88[xx]
Feminine (BSI)	-.50	-.38	5.188[xx]

[a] The discriminant function was significant (x=231.21; n=195; df=10 p .0001; canonical R=.41)

[b] The structure coefficient are the Pearson correlation coefficient between original variables and the discriminant function. Degrees of freedom equals 1 and 191

[x] p<.05

[xx] p<.01

TABLE 7

Results of Multiple Discriminant Analysis:
Psychological Sex Groups

Variables	Standardized Discriminant Function Coefficient[a]	Structure Coefficient[b]	Univariate F[c]
Public Speaking (PRCA)	.47	.35	15.72^{XXX}
Interpersonal and Small Groups (PRCA)	-.12	-.42	14.99^{XXX}
Nonverbal Expressiveness (PRCA)	-.004	-.23	5.75^{XX}
Approach-Avoidance (UCS)	-.05	-.36	25.64^{XXX}
Reward (UCS)	-.02	-.19	2.32
Ease of Writing (WAT)	-.05	-.13	3.08^{X}
Enjoyment of Writing (WAT)	-.14	-.31	3.56^{XX}
Rewards of Writing (WAT)	-.12	-.10	3.36^{XX}
Masculine (BSI)	.97	.85	65.48^{XXX}
Feminine (BSI)	.96	.37	50.93^{XXX}

[a] The discriminant function was significant (X^2=252.^{05}; df=10; p .006, canonical R=75)

[b] The structure coefficient are the Pearson correlation coefficient between original variables and the discriminant function

Degrees of freedom equals 3 and 188

^{X} < .05

^{XX} < .01

^{XXX} < .001

TABLE 8

Correlations Among Communication Reticence Variables

DV	PSP	ISG	N	AA	RE	ES	Enj	RW
PSP		.53	.38	.64	.23	.36	.40	.31
ISG			.50	.75	.34	.28	.29	.24
NE				.53	.29	.32	.31	.34
AA					.33	.17	.19	.24
RE						.12	.06	-.03
ES							.13	.07
Enj								-.05
RW								

TABLE 9

Canonical Correlation Analysis: PRCA and UCS Variables

Variate	Eigenvalue	Cannon/Corr	Wiks Lamba	X^2	df	sig
1	.24	.49	.73	51.83	9	.001
2	.01	.13	.98	3.16	4	.53
3	.0001	.01	.99	.031	1	.87

	Coefficient of left set				Coefficient of right set		
	canvar 1	canvar 2	canvar 3		canvar 1	canvar 2	canvar 3
PSP	-.67	.66	-.73	EW	-.45	.05	116
ISG	-.03	.33	1.23	EJW	-.47	1.04	-.73
NE	-.50	-.103	-.19	RW	-.24	-1.23	-.43

PSP = Public and Platform Speaking

ISM = Interpersonal and Small Group Communication

NE = Nonverbal Expressiveness

EW = East of Writing

EJW = Enjoyment of Writing

RW = Rewards of Writing

TABLE 10

Canonical Correlation Analysis:

PRCA and WAT Variables

Variate	Eigenvalue	Canon/Corr	Wiks Lamba	X^2	DF	sig
1	.683	.82	.31	200.24	6	.0001
2	.009	.09	.99	1.72	2	.42

	Coefficient of Left Set			Coefficient of Right Set	
	canvar 1	canvar 2		canvar 1	canvar 2
PSP	.36	-.92	AA	.95	-.46
ISM	.62	.16	RE	.11	1.05
NE	.21	.86			

PPS = Public and Platform Speaking

ISM = Interpersonal and Small Group

NE = Nonverbal Expressiveness

AA = Approach-Avoidance

RE = Rewards